Reply to Office Action of July 29, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application: Listing of Claims:

1. (Currently Amended) A method to release viruses from animal cells containing said viruses, comprising

subjecting the cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet, and

ejecting the pelleted cells from the centrifuge into a collection receptacle, under conditions effective to lyse promote lysis of said cells and to release said viruses from said cells,

wherein no additional step effective to achieve cell lysis is performed.

2-3. (Cancelled)

- 4. (Currently Amended) The method of claim 1, wherein greater than 90% about 85% of the cells are lysed.
- 5. (Original) The method of claim 1, wherein greater than 50% of the cells are lysed.
- 6. (Original) The method of claim 1, wherein the cells are lysed as they are ejected.
 - 7. (Original) The method of claim 1, wherein the viruses are Adenoviruses.
- 8. (Original) The method of claim 7, wherein the Adenoviruses are recombinant Adenoviruses suitable for gene therapy.
- 9. (Original) The method of claim 7, wherein the yield/cell of Adenovirus particles or infectious Adenovirus is greater than that obtainable when cells containing said Adenovirus are lysed by a freeze-thaw procedure.

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10. (Original) The method of claim 9, wherein the yield/cell of Adenovirus particles is about 1.2 to about 1.6 fold greater than that obtainable when cells containing said Adenovirus are lysed by a freeze-thaw procedure.

- 11. (Original) The method of claim 9, wherein the yield/cell of infectious Adenovirus is about 1.5 to about 1.9 fold greater than that obtainable when cells containing said Adenovirus are lysed by a freeze-thaw procedure.
- 12. (Original) The method of claim 1, wherein the cells are mammalian or insect cells.
- 13. (Original) The method of claim 1, wherein the cells being ejected are under a relative centrifugal force of 6500 to 7500 g.
- 14. (Original) The method of claim 13, wherein said centrifugal force is about 7000 g.
- 15. (Original) The method of claim 1, wherein the pelleted cells are ejected through one or more ejection outlets having a rectangular shape and a cross-sectional area of 50 to 500 mm².
- 16. (Original) The method of claim 13, further wherein the pelleted cells are ejected through one or more ejection outlets having a rectangular shape and a cross-sectional area of 50 to 500 mm².
- 17. (Original) The method of claim 1, wherein the cells are centrifuged in a Westfalia Centrifuge, Model CSA-1 or CSC-6.
- 18. (Currently Amended) The method of claim 1, wherein the forces exerted on the cells at the time of ejection are effective to substantially lyse greater than about 85% of the cells.

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- 19. (Original) In a method of releasing intracellular viruses from cells containing said viruses by continuous centrifugation, the improvement comprising harvesting viruses from the ejected cell pellet directly, without performing an additional step effective to achieve cell lysis.
- 20. (Currently Amended) A method to prepare a cell lysate, consisting of subjecting cells to continuous centrifugation to form a cell pellet, and ejecting said pelleted cells into a collection receptacle <u>under conditions effective to promote lysis of said cells and to form a cell lysate</u>, wherein the collected cells are in the form of a cell lysate.
- 21. (Currently Amended) A method to prepare a cell lysate, comprising subjecting cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet, and

ejecting the pelleted cells from the centrifuge into a collection receptacle <u>under</u> conditions effective to promote lysis of said cells and to form a cell lysate, wherein the collected cells are in the form of a cell lysate,

wherein no additional step effective to achieve cell lysis is performed.

- 22. (Withdrawn) Adenoviruses prepared by the method of claim 7.
- 23. (Withdrawn) Adenoviruses prepared by the method of claim 17.
- 24. (Currently Amended) A method to release viruses from animal cells containing said viruses, comprising

subjecting the cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet, and

ejecting the pelleted cells from the centrifuge into a collection receptacle, under conditions effective to lyse promote lysis of said cells and to release said virus from said cells.

 (Currently Amended) The method of claim 24, wherein the ejected cells are substantially greater than about 85% of the cells are lysed.

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 (Currently Amended) A method to release viruses from animal cells containing said viruses, consisting essentially of

subjecting the cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet, and

ejecting the pelleted cells from the centrifuge into a collection receptacle, under conditions effective to lyse <u>said</u> cells <u>and release said viruses from said cells</u>.

27. (Currently Amended) A method to prepare an intracellular organism, or an intracellular organelle or biological molecule, from host cells containing said organisms, organelles or molecules organism, organelle or biological molecule, comprising

subjecting the cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet, and

ejecting the pelleted cells from the centrifuge into a collection receptacle, under conditions effective to lyse promote lysis of said cells and to release said organism, intracellular organelle or biological molecule from said cells

wherein no additional step effective to achieve cell lysis is performed.

- 28. (Original) The method of claim 1, further comprising subjecting the ejected cells to expanded bed chromatography.
- 29. (New) The method of claim 1, wherein the forces exerted on the cells at the time of ejection are effective to lyse greater than about 50% of the cells.
- 30. (New) The method of claim 24, wherein greater than about 50% of the cells are lysed.